

Impairment, disability, and handicap

Preventive measures have been conveniently categorised at three levels: primary, secondary, and tertiary. Primary prevention affects the agent of disease, the vector or the host, in such a manner that the disease process cannot be initiated. Secondary prevention, which is generally held to be synonymous with screening for disease, may be defined as the presumptive diagnosis of unrecognised disease—that is, the early detection of disease so that its progression can be halted. Tertiary prevention involves the alleviation or prevention of handicap for a given disability or impairment.

Therefore, a proper understanding of the terms impairment, disability, and handicap are crucial to tertiary prevention. The World Health Organisation's classification of impairments, disabilities, and handicaps¹ defines an *impairment* as: any loss or abnormality of physiological or anatomical structure. A *disability* is defined as: any restriction or lack of ability (due to an impairment) in performing an activity in a manner or range considered normal for a human being. Therefore, a given disability may be the result of a variety of impairments, for example, the disability of blindness may be due to corneal opacity, cataract, retinal abnormality, optic nerve lesion, or cortical damage. These structural abnormalities are the impairments. A *handicap* is: a disadvantage for a given individual, resulting from a disability or impairment, that limits or prevents the fulfilment of a role that is normal (depending on age, sex, and social and cultural factors) for that individual.

Just as various impairments may lead to the same disability, so a given disability may produce a range of handicap which is dependent on the individual carrying out their expected role or activity. The partial loss of a finger (the impairment) will lead to some disability in anyone so afflicted. The majority, however, will not find this a serious handicap as it will not interfere with their usual work and leisure activities. In contrast, the same impairment and disability in a professional pianist will result in a profound handicap.

One of the most moving personal accounts that distinguishes between disability and handicap was written by Stephen Hawking in his best selling book, *A Brief History of Time*.² Motor neurone disease had confined Hawking to a

wheelchair for over 20 years and the relentless progression of the disease had necessitated a tracheostomy which removed his ability to speak and made it almost impossible for him to communicate. It is difficult to imagine anyone having a more profound disability. Yet he goes on to say that he had led a fairly normal life having been fortunate to choose theoretical physics as a career, which is all in the mind, so that his disability was not a serious handicap!

The misuse of the term handicap is epitomised in referring to an individual who has a mental impairment as being mentally handicapped. In Westernised society this had undoubtedly arisen because the ability to perform the 'three Rs', is so fundamental to so many activities that any disability regarding them constitutes a serious handicap. Yet this is not universally so. In some tribal societies, which are not dependent on written forms of communication, quite a profound degree of mental disability in the individual may be accommodated without it being stigmatising or constituting a serious handicap.

Many of the major advances in medicine have led to an increased prevalence of disease because children now survive with diseases that previously were associated with early death—for example, diabetes, cystic fibrosis. Chronic disease conditions now constitute a much higher proportion of a paediatrician's workload than they did a few decades ago. It is, therefore, imperative that tertiary prevention be given greater prominence in both teaching and research. This can only be done if there is a proper understanding of impairment, disability, and handicap and if there is an appreciation that even profound impairments and disabilities need not necessarily prove a handicap.

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1 World Health Organisation. *International classification of impairments, disabilities and handicaps: a manual of classification relating to the consequences of disease*. Geneva: WHO, 1980.

2 Hawking SW. *A brief history of time from the big bang to black holes*. London: Bantam Press, 1988.